

**REMARKS**

Applicants have amended the claims to more particularly define the invention taking into consideration the outstanding Official Action. Claims 1-12 have been canceled from the application and replaced with claims 13-32 which are fully supported by Applicants' specification. The new claims parallel original claims 1-12. However, claims 13 and 14 correspond to a combination of claims 1, 2 and 8 which have been canceled from the application. Claim 14 is restricted in the use of consisting of in the transitional phrase of the claims. Claim 13 is not so restricted. This amendment obviates the rejection of the claims as indefinite. Claim 12 has been canceled and rewritten in proper method form. Applicants most respectfully submit that all of the claims now present in the application are in full compliance with 35 U.S.C. §112 and are clearly patentable over the references of record.

The rejections of claim 1 under 35 U.S.C. §112, second paragraph as indefinite and the rejection under 35 U.S.C. §101 have been obviated by the amendment to the claims. Accordingly, it is most respectfully requested that these rejections be withdrawn.

The rejection of claims 1-12 under 35 U.S.C. §103 as being obvious over Green et al in view of Paul has been carefully considered but is most respectfully traversed in view of the amendments to the claims.

Applicants wish to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP § 2143. This section states that to establish a prima facie case of obviousness, three basic criteria first must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants also most respectfully direct the Examiner's attention to MPEP § 2144.08 (page 2100-114) wherein it is stated that Office personnel should consider all rebuttal argument and evidence present by applicant and the citation of *In re Soni* for error in not considering evidence presented in the specification.

In the Official Action it is urged that Green discloses a nutritional composition composed of oligosaccharides such as galacto-oligosaccharides present in the amount of 8-40% (column 3, lines 1-16). It is further urged that the reference composition also contains inulin which is a polysaccharide consisting of fructose units in an amount ranging from 20-40%. It is also recognized in the Official Action that the reference does not expressly teach Applicants' claimed amount of carbohydrate components and urges that differences in concentrations will not support the patentability of the subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. This aspect of the rejection is most respectfully traversed.

Applicants most respectfully submit that the necessary motivation must be found in the prior art. There must be some reason to make the necessary selection to arrive at the compositions of the invention as now presently claimed. As noted, the claimed subject matter has been restricted as clearly set forth in claim 14 and claims dependent thereon. There is absolutely no suggestion in the prior art to use the composition as specifically recited in claim 14. This composition includes carbohydrate component A consisting of a specific monosaccharide and carbohydrate component B consisting of specific polysaccharide containing a maximum of up to 100 monosaccharide units.

Also, the specified amounts of the composition in claim 14 are not suggested nor is the amount of at least 80 weight percent of the carbohydrates/saccharides of the carbohydrate components A and B have a per biotic effect. Accordingly, it is most respectfully requested that the rejection with respect to the subject matter as applied to claim 14 and those claims dependent thereon be withdrawn.

In addition, claim 13 is clearly patentable over the references for the same reasons as discussed in that there is no motivation. Claim 13 uses comprises which opens the claim to additional components. However, an interpretation of the claims cannot ignore the limitations contained in the claims even though other ingredients may be present. The skilled artisan must be led to the composition and the necessary motivation must be provided in the prior art not in Applicants' specification. Applicants' specification may not be used as a teaching reference to search the prior art and arrive at the presently claimed invention. In re Fritch, 23 USPQ 1780, 1784(Fed Cir. 1992) ("It is impermissible to engage in hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps.).

Claim 13 contains limitations with respect to the amounts of component A and component B and also that at least 80 weight percent of the carbohydrates/saccharides of the carbohydrate components A and B have a prebiotic effect. In addition, there are numerous claims dependent upon claim 13 which provide further limitations and which are not suggested by the prior art. See for example, claim 17, 19 and claim 21. There is no suggestion of the specific amount of the various ingredients as required by the present claim. This is also true with respect to the claim 31 which is written in proper form and relates to a specific method of using the carbohydrate mixture of claim 13. Claim 31 is clearly allowable and unobvious from the prior art. This is also true with respect to claim 32. The mixture of the Green reference contains 5-120 g of dietary fibre wherein the fibre consists of four components (see claim 1). This optimal fibre composition shall be similar to the normal fibre composition as consumed by healthy persons in Western countries (see column 1, lines 26-28 of the Green reference). The four components of the claimed fibre composition are the following:

1. Soluble non-starch polysaccharides, 15-50 wt.-%
2. insoluble non-starch polysaccharides, 15-45 wt.-%
3. lignin 1-5 wt.-% and
4. a member of the group consisting of oligosaccharides, resistant starch or mixtures thereof.

The carbohydrate mixtures of the present invention have to contain two soluble carbohydrate components A and B. It cannot be seen that the known fibre mixture can make obvious such a carbohydrate mixture of the invention since the latter carbohydrate mixtures does not contain three components which are essential for the known mixture taught by the Green reference (hereinafter called Green mixture). It is mandatory for the Green mixture that it contains insoluble non-starch polysaccharides, lignin and resistant starch. Therefore there is no motivation to leave out these components and to use the carbohydrate components taught by the present invention.

Furthermore, Green reference does not give any hint in the description and does not contain any example according to which the Green mixture has to contain at least one component A and in addition one component B regardless of the fact whether the other above mentioned components (non-starch polysaccharides, lignin and resistant starch) are present.

For instance, the Green reference is silent to the size distribution of DP2-6 (2 to 6 monosaccharide units) for component A and DP7 to maximum DP100 for component B whereby said components A and B have in addition a different chemical structure.

The fact that the core of the present invention is not taught by the Green reference is clearly illustrated by examples 3 and 4 of the Green reference. According to the present invention at least one component A and at least on component B must be present. The examples 3 and 4 of the Green reference describe Green mixtures which contain soluble prebiotic carbohydrates like Raftilose and Raftiline. In this context it has to be emphasized that these components belong to the same group of carbohydrates, i.e. the so-called fructans. This is in contradiction to the present application according to which it is mandatory to combine carbohydrates of a different class (different size distribution and different chemical structure). How can a reference,

which teaches the use of two carbohydrates belonging to the same class, make obvious to do exactly the opposite, i.e. to use two carbohydrates at the same time which belong to different classes (different size distribution and different chemical structure). This clearly demonstrates that the core of the present invention cannot be made obvious by the teaching of the Green reference and that Examiner's objections are not justified. Accordingly, it is most respectfully requested that the rejection be withdrawn.

In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,  
BACON & THOMAS, PLLC

By: Richard E. Fichter  
Richard E. Fichter  
Registration No. 26,382

625 Slaters Lane, 4<sup>th</sup> Fl.  
Alexandria, Virginia 22314  
Phone: (703) 683-0500  
Facsimile: (703) 683-1080

REF:kdd  
A01.wpd

September 16, 2002